



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,343	07/10/2001	Larry R. Harris	EZM-001.01	8897

25181 7590 03/05/2004

FOLEY HOAG, LLP
PATENT GROUP, WORLD TRADE CENTER WEST
155 SEAPORT BLVD
BOSTON, MA 02110

EXAMINER

LY, ANH

ART UNIT	PAPER NUMBER
----------	--------------

2172

DATE MAILED: 03/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,343

Applicant(s)

HARRIS, LARRY R.

Examiner

Anh Ly

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,6,8,14,16-38,40,41,43-45,49,55-57,65-68,71 and 78-93 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 4,6,8,14,16-38,40,41,43-45,49,55-57,65-68,71 and 78-93 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is response to Applicant's Response filed on 01/29/2004.
2. Claims 1-2, 5, 7, 9-13, 15, 39, 42, 46-48, 50-54, 58-64, 69-70 and 72-77 have been cancelled.
3. Claims 78-93 have been added.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Kevin A. Oliver (Reg. No. 42,049) on Monday, 02/23/2004

The application has been amended as follows:

Claims 1-3 are cancelled

and claim 93 depends on independent claim 65.

Response to Amendment

5. Applicant's arguments, see page 13, lines 23-31, filed 01/29/2004, with respect to the rejection(s) of claim(s) 14, 55 and 65 under US Patent No. 6,601,026 of Appelt et al. (hereinafter Appelt) and US Patent No. 5,752,061 of Whittaker et al. (hereinafter Whittaker) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US Patent No. 5,999,937 of Ellard.

6. Claims 4, 6, 8, 14, 16-38, 40-41, 43-45, 49, 55-57, 65-68, 71 and 78-93 are pending in this application.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14, 4, 16-38, 40, 49, 55-56, 65-68 and 78-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,601,026 issued to Appelt et al (hereinafter Appelt) in view of US Patent No. 5,999,937 issued to Ellard.

With respect to claim 14, Appelt discloses receiving the a query (user provides query to extract information from the system via natural language user interface: see fig. 1, item 110 and col. 10, lines 65-67 and col. 11, lines 1-38); based on the query and the respective first and second data formats, generating first and second customized queries (translation of natural language query into SQL query to go with the information of data source: col. 6, lines 18-27 and lines 40-52; and the search result is sent to the user: col. 4, lines 22-25), and applying the first and second customized queries to the respective first and second data source (using the SQL query, customized query, which are translated from natural language query to execute the database or the query is submitted to information extraction query engine: col. 6, lines 40-52).

Appelt discloses a natural language information querying system comprising a method for searching text document based n the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-18), and the search result can be provided to a text-to-speech system which looks up each work in a dictionary to translate the text to speech for the user (col. 13, lines 38-45). Appelt does not explicitly teach for the respective first and second data format and the respective first and second data sources.

However, Ellard discloses the first data format and the second data format are different data format (col. 2, lines 60-67 and col. 3, 1-9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt with the teachings of Ellard so as to have searching the configuration database including one or more databases and it also converting a data record from one format to another data format (col. 5, lines 20-46). This combination would have made a method for searching for at least one database (Ellard - col. 5, lines 20-46; also see col. 2, lines 42-67) using a specialized database query language such as SQL and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

With respect to claim 4, Appelt discloses wherein receiving the query includes receiving a HTTP message (col. 6, lines 37-40).

With respect to claim 17, Appelt discloses wherein receiving the query includes receiving at least one of at least one natural language query and at least one keyword (col. 3, lines 37-57, col. 6, lines 38-50 and col. 14, lines 62-67; also see col. 1, lines 30-35).

With respect to claims 18-19, Appelt discloses wherein receiving the query includes receiving the query via a network (col. 3, lines 22-26 and col. 5, lines 5-19);

Art Unit: 2172

wherein receiving the query includes receiving at least one relational operator (col. 16, lines 1-25 and also col. 1, lines 42-50).

With respect to claim 20, Appelt discloses a method as discussed in claim 14. Also Appelt discloses at least one column (col. 6, lines 12-26 and lines 62-67 and col. 7, lines 1-32).

Appelt discloses a natural language information querying system comprising a method for searching text document based on the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-18), and the search result can be provided to a text-to-speech system which looks up each word in a dictionary to translate the text to speech for the user (col. 13, lines 38-45). Appelt does not explicitly teach for the respective first and second data format and the respective first and second data sources.

However, Ellard discloses the first data format and the second data format are different data format (col. 2, lines 60-67 and col. 3, 1-9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt with the teachings of Ellard so as to have searching the configuration database including one or more databases and it also converting a data record from one format to another data format (col. 5, lines 20-46). This combination would have made a method for searching for at least one database (Ellard - col. 5, lines 20-46; also see col. 2, lines 42-67) using a

Art Unit: 2172

specialized database query language such as SQL and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

With respect to claims 21-27, Appelt discloses wherein the query is a natural language query and generating first and second customized queries including translating the query from a first language to at least one distinct second language (col. 6, lines 12-27); wherein translating the query includes processing the query using a natural language processor (col. 5, lines 5-15 and col. 6, lines 12-27); wherein the natural language query includes performing a spell check (syntactic or grammar check: col. 8, lines 42-55 and col. 9, lines 28-51); and wherein the query includes performing a context evaluation of the query (col. 6, lines 12-27); wherein the query includes determining a data format of the data source (text format: col. 5, lines 5-15); wherein the query includes identifying at least one abbreviation in the natural language query (col. 9, lines 15-27); and wherein the query includes identifying at least one abbreviation in the data source (col. 9, lines 15-27).

With respect to claims 29-36, 38 and 40, Applet discloses identifying at least one word variation in at least one of the, first and second data sources and identifying at least one phrase variation in at least one of the first and second data sources (col. 8, lines 8-38); wherein identifying at least one code based on at least one of: the first data

Art Unit: 2172

source and the second data source; generating at least one phonetic equivalent (col. 13, lines 10-20 and lines 40-50); identifying a Frequently Asked Question (FAQ) (col. 13, lines 10-20 and lines 40-50 and col. 3, lines 65-67 and col. 4, lines 1-12); at least one of the query, the first customized query, the second customized, first search results based on the first customized query, second search results based on the second customized query, and a time of query (col. 2, lines 50-58 and col. 4, lines 22-32; and col. 2, lines 50-58);, at least one of at least one identity and at least one privilege with the query (col. 4, lines 22-32 and col. 5, lines 5-35); performing at least one, filtering, of the search results 4eri based on at least one of the first and second customized queries (col. 2, lines 35-59); communicating, the first and second search results to a client includes generating at least one of a graph, a pie chart, a spreadsheet (spreadsheet software: col. 15, lines 5-10); and a histogram based on the first and second search results of the customized query; and communicating the first and second search results to a client includes at least one of generating at least one of: an email, and an instant-message, and a voice message (user's voice: col. 4, lines 22-34 and col. 13, lines 8-32).

With respect to claims 41 and 45, Appelt discloses a method as discussed in claim 14.

Appelt discloses a natural language information querying system comprising a method for searching text document based on the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the

Art Unit: 2172

relational database is executed by using SQL to extract the information (col. 6, lines 12-18), and the search result can be provided to a text-to-speech system which looks up each work in a dictionary to translate the text to speech for the user (col. 13, lines 38-45). Appelt does not explicitly teach for the respective first and second data format and the respective first and second data sources.

However, Ellard discloses the first data format and the second data format are different data format (col. 2, lines 60-67 and col. 3, 1-9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt with the teachings of Ellard so as to have searching the configuration database including one or more databases and it also converting a data record from one format to another data format (col. 5, lines 20-46). This combination would have made a method for searching for at least one database (Ellard - col. 5, lines 20-46; also see col. 2, lines 42-67) using a specialized database query language such as SQL and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

With respect to claims 43-44, Appelt discloses applying at least one of a SQL query and a search engine search expression (col. 6, lines 12-27); conditioning the application of the first and second customized query queries based on at least one of an

Art Unit: 2172

identity and a profile associated with the query (col. 6, lines 38-61, col. 10, lines 65-67 and col. 11, lines 1-38 and also see col. 2, lines 35-58, col. 6, lines 38-52 and col. 12, lines 36-48).

With respect to claims 16, 37 and 78-81, Appelt discloses wherein the text data source stores at least one document, at least one of a text file, and at least one file including program instructions (col. 4, lines 6, lines 12-61); communicating the first and second search results to a client includes generating a SGML document (markup language document such as XML document: col. 6, lines 27-36); data sources store data relevant to the query; data sources include one or more of a text data source, a SGML data source, an HTML data source, an XML data source, and a SQL data source (col. 6, lines 27-36 and col. 6, lines 12-26); search results from the respective first and second data sources, and communicating the first and second search results to a client.; and converting the first and second search results to a single data format, and communicating the converted first and second search results to the client (col. 11, lines 38-65 and col. 4, lines 22-32).

With respect to claim 49, Appelt discloses at least one of at least one natural language query and at least one keyword (col. 3, lines 37-57, col. 6, lines 38-50 and col. 14, lines 62-67).

Claim 55 is essentially the same as claim 14 except that it is directed to a device rather than a method (micro-processor: col. 12, lines 65-67 and col. 15, lines 10-22), and is rejected for the same reason as applied to the claim 14 hereinabove.

Art Unit: 2172

With respect to claim 56, Appelt discloses at least one data source. a SGML data source, an HTML data source, an XML data source, and SOL data source (col. 6, lines 27-36 and col. 6, lines 12-26).

Claim 65 is essentially the same as claim 14 except that it is directed to a computer product rather than a method, and is rejected for the same reason as applied to the claim 14 hereinabove.

With respect to claims 66-68, Appelt discloses at least one of: at least one natural language query and at least one keyword, receive the query via a network, to receive a HTTP message (col. 3, lines 37-57, col. 6, lines 38-50 and col. 14, lines 62-67; col. 3, lines 22-26 and col. 5, lines 5-19; and col. 6, lines 37-40).

With respect to claims 82-87, Appelt discloses data sources store data relevant to the query, a search engine in communication and a dictionary in communication, apply at least one of a SQL query and a search-engine search expression; communicate the first and second search results to a client, convert the first and second search results to a single data format, and communicate the converted first and second search results to the client and wherein the single data format includes an SGML format (col. 4, lines 6, lines 12-61; markup language document such as XML document: col. 6, lines 27-36; col. 6, lines 27-36 and col. 6, lines 12-26 and col. 11, lines 38-65 and col. 4, lines 22-32; and search query engine: col. 2, lines 60-67, col. 3, lines 1-36, also see fig. 1 and col. 5, lines 5-37).

With respect to claims 88-93, Appelt discloses data sources store data relevant to the query, a search engine in communication and a dictionary in communication,

Art Unit: 2172

apply at least one of a SQL query and a search-engine search expression;
communicate the first and second search results to a client, convert the first and second search results to a single data format, and communicate the converted first and second search results to the client and wherein the single data format includes an SGML format (col. 4, lines 6, lines 12-61; markup language document such as XML document: col. 6, lines 27-36; col. 6, lines 27-36 and col. 6, lines 12-26 and col. 11, lines 38-65 and col. 4, lines 22-32; and search query engine: col. 2, lines 60-67, col. 3, lines 1-36, also see fig. 1 and col. 5, lines 5-37).

9. Claims 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,601,026 issued to Appelt et al (hereinafter Appelt) in view of US Patent No. 5,999,937 issued to Ellard, and further in view of US Patent No. 6,446,064 issued to Livowsky.

With respect to claim 6, Appelt in view of Ellard discloses a method as discussed in claim 14. Also Appelt teaches the system accepting query keyword from the user (col. 1, lines 30-35).

Appelt discloses a natural language information querying system comprising a method for searching text document based n the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-

Art Unit: 2172

18). Appelt does not explicitly teach the respective first and second data formats. Ellard discloses different data formats (col. 2, lines 60-67 and col. 3, 1-9). In combination of Appelt and Ellard do not explicitly teach at least one synonym.

However, Livowsky discloses generating synonyms of the query (col. 4, lines 33-35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt in view of Ellard with the teachings of Livowsky so as to have a method for generating at least one synonym based on the query (Livowsky - col. 4, lines 33-35) and synonyms are used to form alternate search words (col. 4, lines 52-61). This combination would have made a method for searching a database via a user friendly interface that can access natural language (Livowsky), searching for a database using a specialized database query language such as SQL and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

Art Unit: 2172

10. Claims 8, 28, 57 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,601,026 issued to Appelt et al (hereinafter Appelt) in view of US Patent No. 5,999,937 issued to Ellard, and further in view of US Patent No. 5,752,061 issued to Whittaker et al. (hereinafter Whittaker).

With respect to claim 8, Appelt in view of Ellard discloses a method as discussed in claim 14.

Appelt discloses a natural language information querying system comprising a method for searching text document based on the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-18). Appelt does not explicitly teach the respective first and second data formats. Ellard discloses different data formats (col. 2, lines 60-67 and col. 3, 1-9). In combination of Appelt and Ellard do not explicitly teach at least one relationship between two rows and at least one relationship between two columns.

However, Whittaker discloses relational database and row headings and column headings or row header and column header as row information and column information of at least one database element (col. 2, lines 45-58, col. 3, lines 8-30 and col. 13, lines 22-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt in view of Ellard with the teachings of Whittaker so as to have one database element information such as

row and column header (col. 3, lines 8-30 and col. 13, lines 22-32). This combination would have made a method for searching for a database using a specialized database query language such as SQL (Whittaker – col. 2, lines 40-67 and col. 3, lines 1-6) and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

With respect to claim 28, Appelt in view of Ellard discloses a method as discussed in claim 14.

Appelt discloses a natural language information querying system comprising a method for searching text document based on the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-18). Appelt does not explicitly teach the respective first and second data formats. Ellard discloses different data formats (col. 2, lines 60-67 and col. 3, 1-9). In combination of Appelt and Ellard do not explicitly teach at least one relationship between two rows and at least one relationship between two columns.

However, Whittaker discloses relational database and row headings and column headings or row header and column header as row information and column information

of at least one database element (col. 2, lines 45-58, col. 3, lines 8-30 and col. 13, lines 22-32) and textual term (col. 8, lines 58-67, col. 9, lines 1-5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt in view of Ellard with the teachings of Whittaker so as to have one database element information such as row and column header (col. 3, lines 8-30 and col. 13, lines 22-32). This combination would have made a method for searching for a database using a specialized database query language such as SQL (Whittaker – col. 2, lines 40-67 and col. 3, lines 1-6) and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

With respect to claim 57, Appelt in view of Ellard discloses a method as discussed in claim 55.

Appelt discloses a natural language information querying system comprising a method for searching text document based on the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-18). Appelt does not explicitly teach the respective first and second data formats. Ellard discloses different data formats (col. 2, lines 60-67 and col. 3, 1-9). In combination of

Appelt and Ellard do not explicitly teach at least one relationship between two rows and at least one relationship between two columns.

However, Whittaker discloses relational database and row headings and column headings or row header and column header as row information and column information of at least one database element (col. 2, lines 45-58, col. 3, lines 8-30 and col. 13, lines 22-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt in view of Ellard with the teachings of Whittaker so as to have one database element information such as row and column header (col. 3, lines 8-30 and col. 13, lines 22-32). This combination would have made a method for searching for a database using a specialized database query language such as SQL (Whittaker – col. 2, lines 40-67 and col. 3, lines 1-6) and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

With respect to claim 71, Appelt in view of Ellard discloses a method as discussed in claim 65.

Appelt discloses a natural language information querying system comprising a method for searching text document based on the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system

has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-18). Appelt does not explicitly teach the respective first and second data formats. Ellard discloses different data formats (col. 2, lines 60-67 and col. 3, 1-9). In combination of Appelt and Ellard do not explicitly teach at least one relationship between two rows and at least one relationship between two columns.

However, Whittaker discloses relational database and row headings and column headings or row header and column header as row information and column information of at least one database element (col. 2, lines 45-58, col. 3, lines 8-30 and col. 13, lines 22-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Appelt in view of Ellard with the teachings of Whittaker so as to have one database element information such as row and column header (col. 3, lines 8-30 and col. 13, lines 22-32). This combination would have made a method for searching for a database using a specialized database query language such as SQL (Whittaker – col. 2, lines 40-67 and col. 3, lines 1-6) and searching the text document stored in the database based on the natural language query (Appelt – col. 2, lines 20-40) and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user (Appelt – col. 3, lines 20-65) in the natural language query searching environment.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2172

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is 703 306-4527 or via E-Mail: ANH.LY@USPTO.GOV. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on 703 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703 746-7239.

Any response to this action should be mailed to:

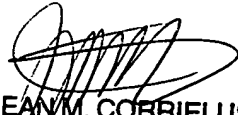
Commissioner of Patents and Trademarks


Washington, D.C. 20231

or faxed to: Central Office (703) 872-9306 (effective from 08/04/2003)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-6606 or 703 305-3900.


JEAN M. CORRIELUS
PRIMARY EXAMINER

AL 
FEB. 27th, 2004